OBSERVATIONS ON SEA-SICKNESS

BY

SIR JAMES ALDERSON, M.D., F.R.S.

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JAMES W. [illegible]

J. Malcolm McKenzie

[illegible]

LIE DOWN AND AVOID SEA-SICKNESS

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FIRST EDITION. This guide to sea-sickness and how to avoid it is aimed at those crossing the English Channel for holiday purposes. The author recommends lying down in the boat, at the most central part possible/available, with one's feet facing the bows of the boat and with one'. This should be done from the point of embarkation - waiting until the boat is moving may be too late, and waiting till the motion of the boat begins to make one feel queasy is certainly too late. The reason for the recumbent position with feet facing the bows is to combat the "ascertained physiological fact that the brain is disturbed through the pitching of a ship, in the same way as concussion takes place in a barometer when the instrument is suddenly made to descend. It is to be inferred that in the same way as the barometer may be protected from disturbance by not subjecting it to any sudden descent whilst it is held upright, so the brain may be saved from all disturbance by avoiding any sinking of the frame whilst in an upright position" (pp. 38-39).

Alderson became physician-extraordinary to Queen Victoria and it is to be wondered if he persuaded her to lie down crossing the Solent to the Isle of Wight – although in the Britannia that might mot have been such a hardship!

OBSERVATIONS

ON

SEA-SICKNESS.

M18072

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CONTENTS.

CHAPTER I.

PAGE.
PRELUDE TO CONTINENTAL TRIP 1

CHAPTER II.

SCIENTIFIC CAUSE OF SEA-SICKNESS 6

CHAPTER III.

MEASURES TO PREVENT SEA-SICKNESS 15

CHAPTER IV.

PATHOLOGY OF SEA-SICKNESS 19

CHAPTER V.

ANCIENT AUTHORS ON SEA-SICKNESS 27

CHAPTER VI.

SCHEMES IN AGITATION 32

CHAPTER VII.

SUMMARY OF THEORY AND OF SUGGESTIONS TO PREVENT SEA-SICKNESS 38

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The substance of the following observations was first printed, a short time ago, in the "British Medical Journal." It is now offered in a rather popularized and extended form to the English travelling public. The Author has already received a striking testimony to the usefulness of the suggestion; and if his little book shall have saved only one more sufferer from a miserable hour, he will have had his recompense.

CHAPTER I.

PRELUDE TO CONTINENTAL TRIP.

PERMIT me, dear traveller, whom I propose to help, to begin by recalling to your recollection some particular occasion when, bent on a delicious ramble on the continent, you have had to pass to your promised paradise of a three-weeks' holiday, through the purgatory which awaited you between England and France. The incidents of that too-well remembered day may be retraced as follows:—

It was a gloomy morning—grey scud drove rather low beneath a canopy of clouds

—a cold drizzle, hardly to be called rain, damped your face; you looked seaward, and muddy-looking waves, slightly toppled over in the foreground, whilst a slate-coloured sea, with little white flakes upon it, was visible in the offing. Well, the white horses did not look pleasant, but "It is not so very stormy," you still said to yourself, as you stepped on board; and you added, "There is no help for it now," as you pushed boldly forward on the sodden, but by no means clean-washed, deck.

You disdained to think about the next two hours of your life; and just as the last bell rang, you chose the most comfortable-looking passenger you could find, to begin a light little talk upon the common topics of the day. You discussed the Claimant, and the coming Derby; you avoided the Alabama question, as not being exhilarating, and you were pausing to look for a cheerful subject, when a deep lurch as the packet left the pier, forced your attention upon your own particular circumstances; not that you had actually ever lost sight of them, but you had been trying to practise a quiet little deception upon yourself in regard to your immediate prospects, the hopelessness of which self-delusion was exposed by the lurch, and finally confirmed by the answer which was given by the helmsman to some faint-hearted inquirer: "Not such a very bad passage, ma'am. May be a lively one, and rather long." This sounded like the knell of your own vain hopes. Certain incipient sensations strengthened the effect of those ominous words; a sudden hot flush came all over you, and a sinking of your whole inside; you grasped the handrail, you subsided on to the nearest bench, and your projected small-talk faded into the unspoken reflection of "Well, I'm in for it now, however."

I am not proposing to accompany you

further into your experiences; and I, a too frequent fellow sufferer, should not have chronicled the prelude to them, did I not entertain the benevolent hope of being able to impart some scientific knowledge, and to offer some practical deduction from it which, I believe, will help you to go through your next sea trial in a happier manner.

The cause of sea-sickness and its possible amelioration is a subject particularly appropriate at the present time. It is more agreeable to offer suggestions for relief than to comment on the sybaritic weakness which is generally displayed in impatience of the evils usually to be encountered in a passage across the Channel. When we remember that not half a century ago, people, after waiting days or perhaps weeks for fair wind and weather, were glad to consider a voyage of six hours of tossing and sickness as a very favourable one, we can hardly understand how the present generation feel it unendurable to submit to a single hour and a half after having started at a given time. Though, however, we must admit the fact that we are less brave in meeting discomforts than our predecessors, there is still satisfaction in diminishing those discomforts to the utmost in our power.

We have seen the futility of various devices, such as stimulants, globules, ice-bags, etc., all of which, not being based on any true knowledge of the evils to be met, are merely empirical. Rejecting all of these, therefore, it will be well to treat the subject in a more scientific manner.

CHAPTER II.

SCIENTIFIC CAUSE OF SEA-SICKNESS.

It is plain that there must be a ruling cause for the disturbance of the system which results in sea-sickness; also, that there must be a philosophical explanation of that cause; and upon that explanation it is probable that a plan either to prevent or ameliorate the disturbance may be devised.

An attempt to account for the ruling cause of the disturbance has been already made. It is now more than half a century ago since Dr. Wollaston, afterwards President of the Royal Society, suggested that sea-sickness proceeds from pressure of blood upon the brain; and this view is supported by pathological observations, since injury or pressure on the brain is almost invariably attended by vomiting, which is its earliest symptom. Dr. Wollaston explains the way in which pressure is induced upon the brain during the motion of a ship at sea, by reference to the action of mercury in the tube of a barometer. He says "that if a barometer be carried out to sea in a calm, the mercury will rest at the same height as when on shore; but when the ship falls by the subsidence of the waves, the mercury is seen apparently to rise in the tube which contains it, because a portion of its gravity is then employed in occasioning its descent along with the vessel, and accordingly if it were confined in a tube closed at the bottom it would no longer press with its whole weight upon the lower end.

"In the same manner, and for the same

reason, the blood no longer presses downwards with its whole weight and will be driven upwards by the elasticity which before was merely sufficient to support it." I may add to this, that any one who has carried a mountain-barometer, and has happened to let it descend suddenly, must have been sensible of a concussion of the mercury against the top of the tube, and must have both felt and heard the blow. In fact, the mere action of walking is sufficient, by the alternate rise and fall of the hand, to produce this effect. Dr. Wollaston thus considers that the action of the blood on the brain, at the moment of the descent of a ship, is identical with that of the mercury on the top of the barometer, and that there is an actual pressure, and even a blow, which, by frequent repetition, produces nausea and vomiting. The fact is undeniable, that contact does take place between the mercury and the upper part of the tube with more or less violence, and the explanation of the rise of the mercury when the tube descends is this: that when the tube falls, together with the deck, the mercury, losing part of its gravity and so no longer pressing with its whole weight against the tube, but continuing to be pressed by the atmosphere, so soon as its own inertia is overcome, rises.

The same effect takes place in the system, the brain and vessels being considered as the tube, and the blood as the mercury.

As the deck descends, the blood losing part of its gravity and so no longer pressing with its whole weight on the vessels, so soon as its inertia is overcome, is drawn up by their elasticity; thus unusual pressure is induced upon the brain; this pressure amounting to a certain shock, produces sickness and vomiting. The vomiting thus induced is of a peculiar character—very different from that proceeding from a commonly disordered stomach; it occurs in a spasmodic manner, and violent retching remains after the contents of the stomach have been ejected. This continuous retching seems to indicate the repeated action of the undue pressure.

Referring to the experience of sufferers from sea-sickness, it is admitted by all that they are most sensible of the miserable feeling at the moment of the descent of the ship. They are also conscious at that particular time of an instinctive effort to sigh or take a deep inspiration, the meaning of which is manifest. During deep inspiration the chest is dilated for the reception of air, and its vessels become more open to admit blood, so that a return of blood from the head is then more free than at any other period of complete respiration; whilst, on the contrary, by the act of expelling air from the lungs, the ingress of blood is obstructed. This obstruction is proved by observation when the surface of the brain is exposed by the operation of trephining; a successive turgescence and subsidence of the brain is then seen in alternate motion with different states of the chest. A deep inspiration, therefore, at the time of the descent of the ship tends to counteract the turgescence of the brain.

In regard to the pitch which produces the specific disturbance of the brain, it is worth while to offer an observation. It is not a single wave which produces this violent pitch of the vessel, but a series of waves, each of which adds its portion of pitching motion, until a point is arrived at, when the accumulated motion results in a sudden deep pitch or descent of the head of the vessel into the trough of the wave, and causes it to strike against the opposite side of the wave, whilst, at the same time, the sea water breaks over the vessel. As the result of this violent impact against the opposite side of the wave, the vessel staggers, and then, for a time, becomes comparatively steady. By degrees, the same process is again repeated.

I remember an illustration of this afforded at one of the evening discussions of the Royal Society. One of the Fellows described the successive intervals of comparative quiet after sudden shocks on a rough sea. He stated that he had been able to go through the process of shaving by watching the recurrence of the shock, suspending his operation, and taking advantage of the intervals to proceed with it. On which the Secretary observed that if he had counted the number of waves in each interval, he would have been able to ascertain the law of the series.

Sickness is sometimes produced by waltzing. In this case the same theory of pressure on the brain holds good; but during rapid gyration in waltzing the blood is acted on differently; it is here centrifugal force which causes the blood to rise in the vessels supplied to the brain. There is an additional cause of cerebral disturbance from the confusion of objects rapidly presented to the eye: from this comes giddiness.

In reference to sickness brought on by swinging, I cannot do better than quote Dr. Wollaston: "Sickness, by swinging, is evidently from the same cause as sea-sickness, and that direction of the motion, which occasions the most piercing sensation of uneasiness, is conformable to the same explanation already given. It is in descending forwards that this sensation is perceived, for then the blood has the greatest tendency to move from the feet towards the head, since the line joining them is in the direction of the motion; but when, in the descent backwards, the motion is transverse to the line of the body, it occasions but little inconvenience, because the tendency to propel the blood towards the head is then inconsiderable."

The last observation of Dr. Wollaston, quite accurate as to the result, plainly suggests the practical bearing of the subject. Knowing the mode in which the ship's movement acts on the brain, we are at once furnished with the only rational way of averting sea-sickness.

CHAPTER III.

MEASURES TO PREVENT SEA-SICKNESS.

SINCE an upright position, either sitting or standing, is that in which the brain suffers by the pressure of the blood, it is plain that a recumbent position is the first object to be sought. A person lying down with the feet in the direction of the bows of a ship is, whilst it descends in pitching, in the same position as a person in a swing descending forwards, in which case we have seen that sickness is produced by blood being forced upon the brain. On the contrary, a person lying down with his head in the direction of the bows is, during the descent of a ship, in the position of one descending backwards in a swing, in which case the "motion is transverse to the line of the body, and thus occasions little comparative inconvenience, because the tendency to propel the blood towards the head is then inconsiderable."

The first point, therefore, is wholly to avoid the upright posture. Every one knows that it is a common practice to lie down, and this is done almost instinctively; but it is also known that to do so, though frequently unsuccessful, is not invariably so. The way in which the motion in a swing affects the brain affords the proper explanation why lying down is not invariably successful; and shows that it is necessary, not only to take a recumbent position, but to lie in the right direction. It is necessary not only to lie down, but to do so with the head in the direction of the bows of the vessel; and it is highly desirable that this position should be assumed before the vessel or packet begins to move, because if the disturbance of the sensorium is once induced, time must elapse, even after having taken the recumbent posture, before equilibrium can be restored, and the sickness and giddiness, which have been induced, pass off.

There is a secondary advantage to be gained by closing the eyes, and so shutting out the confusion arising from the movement of surrounding objects.

Having indicated the most desirable position to be assumed, some consideration is due to the part of the ship which should be preferred, as to where the least motion is likely to be experienced.

In the midships will be found the centre of oscillation, *i.e.*, the point about which all the parts of the vessel may be supposed to oscillate, whether in pitching or in rolling.

It will be, of course, the nearest to that point at which the smallest movement will take place; therefore, as nearly as possible, the centre of the ship is to be preferred.

There is not only the pitching but the rolling to be taken into account. When there is only pitching and tossing, a position across or transverse to the length of the vessel is favourable, since a rocking motion is all that would be experienced—one which is not likely to force blood upon the brain; but much consideration to this point is needless to those who are merely making a passage across the Channel, because in rapidly moving steamers it is very rare for much rolling motion to take place.

The transverse position may, therefore, be admissible; and only that with the feet in the direction of the bows of the vessel should be carefully avoided.

CHAPTER IV.

PATHOLOGY OF SEA-SICKNESS.

THERE are always a number of objections to any newly-proposed theory, which it is as well to meet if possible. There are two of these: one being the immunity of certain individuals from sea-sickness; the other being the relief which is usually experienced after a certain time spent at sea. But, before entering on these special topics, I wish to enlarge a little further on the connexion of sickness and vomiting with brain disturbance. It is well known to pathologists that, of all the causes which act sympathetically to induce vomiting, affections of the head are the most common; nothing can affect the sensorial functions without in some way disturbing the stomach. The experience of all practical men testifies constantly to this; but if reference to published authority be desired, I may quote undeniable testimony in a valuable paper in the *Transactions* of the Royal Medical and Chirurgical Society, by Sir Benjamin Brodie (vol. xiv. p. 339). In treating of concussion of the brain, he says that "sickness and vomiting, for the most part, are early symptoms." Now there can be no doubt that the effect on the brain produced by the blood during the descent of the ship is of the character of a slight concussion, and it is from the repetition of these frequent slight shocks upon the brain that the sensorium ultimately becomes affected, and that the retching and sickness are induced. It is in the less severe forms of concussion that sickness and vomiting most certainly occur. In the graver forms of head-affection, such as apoplexy, it is not so often found, because it requires a certain degree of excitability of the brain to induce the act of vomiting, and that excitability has been destroyed by extreme pressure.

I shall now speak of the immunity of certain individuals from attacks of sea-sickness. This at first sight seems an anomaly, and presents a difficulty in accepting the theory which I propose, as well as every other theory which may be brought forward. I can only suggest, as a solution of the difficulty, that there are constitutions so formed as to be very slightly subject to sensorial impressions. The same inequality subsists between different individuals in their capacity of being emotionally affected; some are unmoved by the most distressing subjects; some have their feelings easily excited. It must be borne in mind that the argument as to exceptional immunity is equally applicable to all methods of explaining the existence and causes of sea-sickness.

In regard to the recovery from sea-sickness, there is much to be said without abandoning the theory of the original cause. A wonderful and instinctive power of accommodation to circumstances is possessed by the human frame. In the course of time, the sensorium is able to adapt itself to unusual circumstances; and on this point again we may refer to the same paper by Sir Benjamin Brodie, who, to his statement, "that sickness and vomiting are early symptoms," adds, "that they seldom continue after the patient has recovered from the first shock of the accident." I may add to this, that, when organic change has taken place in the brain, as in the presence of a clot of blood, from the rupture of a vessel, there is, on reaction taking place, a cessation from sickness and vomiting.

That the brain has an extraordinary

power of adaptation to circumstances, is evidenced by recovery from hemiplegia, as well as by numerous recorded instances of foreign bodies, such as bullets, etc., being lodged in the brain with subsequent recovery. As an auxiliary to the power of the brain to accommodate itself to the motion of a ship at sea, I must refer to the instinctive act of inspiration, of which I have already spoken, as a great adjunct to relieve the brain from an undue supply of blood.

It must be remembered that recovery from sea-sickness during a voyage, in most cases, takes place after one or two days; by which time the sufferers, now convalescent, have exchanged the short choppy waves of the English Channel for the totally different seas of the Atlantic Ocean or the North Sea. Having myself several times crossed the Bay of Biscay, and having been once three months on board a sailing vessel, I am quite aware of the entirely different kind of sea to be met with outside the Channel; and I can conjecture that any relief which took place in the broad swelling waves of the Atlantic would not have been so soon experienced if I had been still pitching about between England and France.

As to my suggestion, I must again remark that it was intended to prevent sea-sickness, and not as a remedy to relieve it after it has been once set up. It is offered as a means whereby the action on the sensorium shall never be induced. After that has once taken place, the effect cannot be expected to subside immediately from the mere avoidance of further exciting cause.

I hope that this scientific disquisition may not have appeared tedious to you; at any rate, I doubt not but that the practical application will be clear, and I hope that it will be acceptable.

It was a happy thought of Dr. Wollaston to apply his explanation of the barometer to the analogous action of the blood upon the brain, and having accepted this analogy, I trust that you will not despise the practical advice which naturally arises from it, as being too simple to be valuable.

You will very likely anticipate in a treatise on Sea-Sickness that the subject of precaution as to diet ought not to be omitted. I shall, however, say very little about it, since it cannot assume the importance of even a prevention or a cure. Of course, before going on board, any excess or change of usual habits would be obviously inexpedient; but no rules for a particular diet before going on board can possibly be suited to all habits and constitutions: that which would be suitable for strong men would be very ill-adapted for delicate constitutions. There is evidence that the contents of the stomach have very little to do with the sickness, which is secondary only to a disturbance of the sensorium. Vomiting and retching equally take place after the stomach has wholly emptied itself; and this is a distinctive difference between vomiting which arises as a consequence of cerebral disturbance and that from disordered stomach.

CHAPTER V.

ANCIENT AUTHORS ON SEA-SICKNESS.

Some learned people who have occupied themselves about the history of sea-sickness, seem to be disposed to look upon it as a sort of mystery invented for the torture of the modern world. The few allusions which are made to it by classical authors, seem to favour this idea; but if it would be any comfort to you to believe that the ancients were your fellow-sufferers, I think it will not be difficult to infer that they only escaped the full amount of inconvenience because they were far from having attained the extent of modern nautical experiences.

The very word Nausea comes from ναυς, a ship: and it is used by Horace in his first Epistle, when he satirizes the poorer classes who, aping their betters in their yachting amusements, are said to "puke in mimic pride"—(nauseat ac locuples).

After the battle of Actium, Horace also alludes to "fluentem nauseam," and calls for rich Cæcubian wine to fortify the brain: though in this case the wine was more appropriate as a jollification to celebrate the victory, than as a scientific remedy for the brain disturbance. The brandy which is the favourite panacea in our steam-packets is then very much out of place; but stimulants generally may be usefully taken as restoratives when the voyage is over, to counteract the depression consequent upon the brain disturbance.

Notwithstanding these poetical allusions, there is certainly very little about it to be found in classic authors; and one reason may be found in the very limited extent of the voyages which were ever undertaken. Coasting voyages in the Mediterranean comprised nearly all to which they extended. The few occasions in which the sea was traversed,—viz., to Carthage, or in the Adriatic—were probably undertaken only in fine weather, and in the summer season. The battle of Actium took place in the first week of September—a time when the Mediterranean is proverbially a calm sea.

Again, the war vessels of the Greeks and Romans were merely small craft, generally fitted with one mast, which they unshipped before going into action. The triple or quadruple banks of oars extending laterally far beyond the ship, and the position of the rowers, low down, must have very materially contributed to steady the vessels, giving a great lateral bearing, and preventing a rolling motion.

The notable yacht of the poet Catullus was built in Asia Minor, and though he navigated in it somewhere across the gulf of Venice, he must have gone up the Po and the Adda to reach his villa on the lake of Como. Therefore, his vessel must have been a very small one.

When Cæsar invaded Britain, it is stated that he waited for a calm sea, and that when overtaken by a storm on the coast of England, he was able to save only those vessels which he was able to draw on shore: and another proof that the vessels were small, is that he had eighty vessels to convey two legions—giving an average of about 150 men to each ship or vessel; and it must be remembered that he required no crew to work his vessels, for his men at arms were trained to row.

The smallness of the vessels may in a great degree, have contributed to the absence of sea-sickness—for a small boat in a short choppy sea, does not get that accumulated motion which causes the pitch in larger vessels.

CHAPTER VI.

SCHEMES IN AGITATION.

Considering the great number of people who remain at home rather than face sea-sickness for an hour or two, it is a very short-sighted policy to neglect any possible arrangement for making the voyage less disagreeable; but even this consideration can scarcely excuse the frantic struggle after new inventions.

Tunnels and bridges seem to sober-minded common sense beyond possible realization, although it seems presumptuous to disbelieve in any engineering capabilities, when we think of the wonderful Franciscan Railway: trains crossing valleys on a narrow way supported by trestles sixty feet high, and no frightful casualty yet reported. Seeing this, we might put difficulty out of the calculation; but it is time which cannot be left out of the question. Another generation might see the completion of new marvels, and might also be so frightfully rich as to count its millions as we now count our thousands; but comfort for poor sea-sick voyagers is wanted now, and not for half a century hence; therefore, we, the present sufferers, may rationally prefer some easier alternative which may benefit ourselves.

The "Ferry Scheme" offers help which seems to be rather more within the reach of living men: but even that, with its vast outlay, appears to be an experiment with a very doubtful issue. The stability of the vessels with so great a weight on deck, and so little hold of the water, is a very serious question, not likely to be got over. It is beside the subject of this little book to discuss the danger of unstable equilibrium from deck-loading, which must raise the centre of gravity and relatively depress the metacentre at which point the shearing force must be supposed to act; also to hint that engineers may promise immunity from danger, whilst the melancholy fate of the *Captain* forbids us to trust in their scientific calculations. One thing is more than probable, that, in rough weather, deck-loading will produce heavy rolling motion.

The probability of avoiding much motion is not very great, and except in a perfect calm nothing can prevent the rising and falling of the vessel.

The sitting posture would be equally unfavourable with that of standing, therefore the action of the blood upon the brain would remain in all its force; and then the grouping of the voyagers in a railway carriage would be something too aggravating to be thought of.

It will be better not to dwell on the idea of being fixed face to face, and all the miserable paraphernalia of basins, etc., etc., having to be enacted in society: no poor comfort for you of being able to turn your face towards a fresh unpolluted breeze, or of confiding your miseries over the side of the vessel to the waves alone. Thus, in order to save the small exertion of leaving your railway carriage at the time of embarkation, you abandon the consolation of leaving the scene of your sickness, if you are sick, with all its disgusting evidences behind you, and of getting into a clean and pure conveyance free from all contaminations.

I think that many will have felt that a few steps on firm ground, and in a pure atmosphere, will have been so pleasant as almost to be a recompense for the past discomfort.

It appears to me that most reasonable people will decline to accept the "Ferry Scheme," with its doubtful experiments and certain tremendous outlay, and turn with hope to the rational view of Mr. Hawkshaw, by whose great authority improvements are recommended, which are at once reasonable and immediately attainable. The class of vessels which he advocates would ensure shorter and steadier passages, and larger accommodation would be provided, so that those passengers who are not among the happy few who enjoy immunity from sea-sickness, or who are not disposed to brave the chance of the hour, may take their recumbent position either on deck in the fresh air, or within a saloon, as nearly on deck as practicable, sheltered from the weather, and thus make their short, but unsuffering transit from one shore to the other.

Only I should wish to reiterate that the efficacy of the plan proposed depends mainly on assuming the recumbent position on going on board, or before the vessel begins to move, thereby avoiding any commencement of the brain disturbance, which it is more easy altogether to elude than to tranquillize when once set up.

CHAPTER VII.

SUMMARY OF THEORY AND OF SUGGESTIONS TO PREVENT SEA-SICKNESS.

By way of a brief summary, I may remind you that it is an ascertained physiological fact that the brain is disturbed through the pitching of a ship, in the same way as concussion takes place in a barometer when the instrument is suddenly made to descend. It is to be inferred that in the same way as the barometer may be protected from disturbance by not subjecting it to any sudden descent whilst it is held upright, so the brain may be saved from all disturbance by avoiding any sinking of the frame whilst in an upright position.

If the barometer is held horizontally, no sudden descent would occasion a concussion; and so by placing the body in a horizontal position, the same immunity from slight concussions on the brain will be avoided. Also it has been shown that by placing the head of the person in the direction of the bows of the vessel, the tendency on the occasion of the vessel's pitching is rather to relieve the brain than to encumber it with blood. You are also to be reminded that sea-sickness does not arise in the first instance from the state of the stomach, but that the stomach is secondarily acted upon through the brain disturbance; therefore, there is no ready relief to be looked for after the action has been once set up in the brain.

The simple measures which have been advocated, as suggested by these facts and reasonings, are, first, to lie down with the head in the direction of the bows; and secondly, to assume the recumbent position before the vessel moves, and, therefore, before any of the real causes which excite sea-sickness can have been applied.

If circumstances make it more convenient to lie across, or transversely to the length of the vessel, that position would be admissible, because the mere rocking movement which would then be felt would not "fling the blood into the head." Care must be taken not to lie down with the feet in the direction of the bows, because, as illustrated by the action in the downward descent in swinging, it would be nearly as bad as the upright position.

Many people are subject to a sickening sensation in consequence of sights or smells, as met with no board vessels, or are made so by the mere power of the imagination. Many are liable to be affected by the mere passage of objects before their eyes: this last proceeds from a real action on the brain, though that sort of nausea is not the genuine sea-sickness produced by brain disturbance, arising from the pitching of the vessel: it may, however, aid, and in a measure prepare the way for it.

It would be wise, therefore, on lying down, to close the eyes, and, if doing so should induce a little gentle slumber, it will be a pleasanter way of getting over the time, than by counting the minutes till the happy one for landing may arrive.

As a piece of earnest advice, I should like to add, avoid all stimulants. Brandy would not only be likely to disorder the stomach, but to affect the brain, the very organ which it is desirable to keep in a quiet state.

A